This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (currently amended) A method for repairing a damaged myocardium in a mammal, comprising:

a) providing a three-dimensional porous polysaccharide matrix;

b) introducing mammalian cells into said matrix;

c) growing said cells in said matrix in vitro, until a tissue-engineered biograft is formed, comprising a contracting tissue; and

d) transplanting the tissue-engineered biograft onto the myocardial tissue or myocardial scar tissue of said mammal, optionally previously removing scar or dead tissue from the site of implantation;

wherein the mammalian cells are fetal, autologous, or allogeneic cardiomyocytes, and

wherein said polysaccharide matrix further comprises controlled-release polymeric microspheres, said microspheres being capable of releasing soluble angiogenic growth factors in a controlled manner.

2. (original) A method according to claim 1, wherein said polysaccharide matrix comprises an alginate polysaccharide.

3. (previously presented) A method according to claim 1, wherein the polysaccharide matrix generates a scaffold.

4. (canceled)

5. (currently amended) A method according to claim 3, wherein said mammalian cells are combined with at least one of endothelial cells, fibroblasts, or smooth muscle cells that are fetal, autologous, or allogeneic.

6. (original) A method according to claim 5, wherein said endothelial cells form capillary-like tubes within the scaffold.

7-8. (canceled)

9. (original) A method according to claim 1, wherein said myocardial damage is due to myocardial infarction.

10. (original) A method according to claim 1, wherein said myocardial damage is due to congenital heart defect.

11-15. (canceled)

16. (currently amended) A tissue-engineered cardiac biograft for transplantation into myocardial tissue or myocardial scar tissue, comprising:

a porous polysaccharide matrix comprising controlled-release polymeric microspheres capable of releasing soluble angiogenic growth factors; and

mammalian cells comprising fetal, autologous, or allogeneic cardiomyocytes alone or in combination with at least one of fibroblasts, smooth muscle cells, or endothelial cells that are fetal, autologous, or allogeneic;

wherein said cells have been cultured in said matrix in vitro.

17. (original) A tissue-engineered cardiac biograft according to claim 16, wherein said polysaccharide is an alginate.

18. (previously presented) A method according to claim 2, wherein the polysaccharide matrix generates a scaffold.

19. (currently amended) A method of preparing a three-dimensional tissue-engineered biograft comprising:

a) providing a porous polysaccharide matrix comprising microspheres capable of releasing soluble angiogenic growth factors; and

b) co-culturing the porous polysaccharide matrix in vitro with fetal, autologous, or allogeneic mammalian cells comprising cardiomyocytes alone or in combination with at least one of fibroblasts, smooth muscle cells, or endothelial cells that are fetal, autologous, or allogeneic, until a cardiac-like tissue is formed, comprising a tissue-engineered biograft.

20. (previously presented) The method of claim 19, wherein the porous polysaccharide matrix comprises an alginate polysaccharide.

21. (previously presented) The method of claim 19, wherein the porous polysaccharide matrix generates a scaffold.

22. (previously presented) A method according to claim 1, wherein said cardiomyocytes are fetal cardiomyocytes, neonatal cardiomyocytes, or adult cardiac cells.

23. (previously presented) A method according to claim 16, wherein said cardiomyocytes are fetal cardiomyocytes, neonatal cardiomyocytes, or adult cardiac cells.

24. (previously presented) A method according to claim 19, wherein said cardiomyocytes are fetal cardiomyocytes, neonatal cardiomyocytes, or adult cardiac cells.